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Comparative Characteristics of Physical Training Among Younger Adolescents in Secondary School

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Formation of the Research Problem and its Significance. Review of the Recent Research. Current reform process in training schools requires attention not only to the school curriculum, but also to improving the lessons of physical training because of lack of motion activity. New methods are being developed in order to eliminate the negative impact on pupils' physical conditioning [1, 3], this is being made in the form of physical training classes according to the syllabi and teaching programs.

Such an opportunity can be achieved in educational institutions when organizing summer camps. Here we deal with sport games where an individual approach to each student is needed [4; 5].

Many factors influence our motor activity throughout life, and the process of improvement may be of different nature. The basic forms of physical education at school are lessons of physical training. However PE lessons cannot always provide the amount of motor activity which is needed.

Recent studies show that the level of training and teachers or trainers experience in schools are at the appropriate level, but unfortunately the amount of time needed on the physical abilities development at the physical training lessons is insufficient for each primary school pupil [1; 3]. It appears to be difficult for a teacher to focus his/her attention on the whole class, if it consists of 20–30 pupils as well as to teach how to perform properly exercises of some kind. These exercises are aimed at physical conditioning and functional state. During a lesson teachers don't have enough time on individual approach to each pupil, but it is known that everyone requires different exercises and physical load in order to develop their physical abilities.

The analysis of scientific and technical literature shows that children physical abilities depend on several factors: age, sex, level of motor activity and others [2].

The objective of the study is to identify the level of fitness among younger adolescents after summer holidays.

Presentation of Basic Material and Justification of the Results of the Research. Physical fitness is a measure of basic motor skills and practice. In the practice of physical education physical fitness is divided into following two types: general and special. General physical efficiency characterizes the level of the main physical abilities and skills required in all forms of human activity (strength, endurance, speed, flexibility, agility, etc.). General physical training aims on versatile development, and the means of it are exercises that make the overall effect on the body and personality. These include movement of moderate intensity (jogging, skiing, swimming, rowing, etc.), outdoor sports and games, sports and auxiliary exercises, exercises with weights. Basic exercises can be used during general physical training, but somehow simplified. Premises of highest possible development of special preparedness to concrete action are set up with the help of general physical training taking into account how pupils react on the level of training. General physical training expands the functionality of the pupil`s body, as well as it gives the possibility to increase the load, constantly providing better results. Physical training should be always taken into account.

The problem of physical training of pupils at secondary school as part of school physical education is of the vital importance in the theory and practice of physical culture and sports. A lot of scientists have been working on this issue such as K. V. Prontenko, O. M. Ol'khovyy, O. A. Yareshchenko, A. M. Chukh, O. Ya. Kibal'nyk, V. Yahello, S. V. Sembrat, V. M. Romanchuk, V. Yahello, N. I. Fal'kova. A lot of studies are being held in this field nowadays, so that is why the physical training of pupils in secondary school occupies a special place in the system of physical education.

The research was carried out at school #23 in Lutsk in Volyn region. In this pedagogical research 87 students of the 5th grade took part (46 boys and 41 girl).

To assess physical preparedness benchmarks were adopted under the Provision of state tests and standards for evaluation of physical fitness of the population of Ukraine.

Table 1

Average Physical Preparedness Indicators of Girls 10–11 Years

Tests	The end of academic year	The beginning of academic year	T	p
	Girls n(41)	Girls n(41)		
	M±m	***M±m***		
Trunk forward flexion, *cm*	13,63±3,92	12,34±5,33	-1,248	>0,05
Shuttle run 4x9, *s*	12,99±0,69	13,22±0,78	1,414	>0,05
Flexion and extension of arms in lying position, the number of times	8,29±5,52	4,87±5,11	-2,911	<0,05
Standing long jump, *cm*	147,80±17,63	145±17	-0,732	>0,05
Run, 30m, *s*.	7,43±0,69	7,50±0,72	0,449	>0,05

Analysis of our research results shows that children's physical preparation deteriorated after summer holidays (table 1, table 2).

As we can conclude from the data presented in Table 1, physical preparedness indicators of girls (10–11 years old) at the end of the academic year of the fourth grade and at the beginning of the next academic year (the same students already in fifth grade), differ dramatically. Average strength indicators: flexion and extension of arms in lying position at the end of the academic year – 8,29, at the beginning – 4,87, that makes 3,42 times difference ($p<0,05$). Other tests also have a change in deviation of the results, but minor, namely trunk forward flexion at the end of the academic year – 13,63, at the beginning – 12,34, with 1,29cm ($p>0,05$) difference. The results of the shuttle run 4x9 among girls at the end of the academic year – 12,99, at the beginning – 13,22, with 0,23sec. ($p>0,05$) difference that is of low probability. The lowest probability, which is not mentioned, is standing long jump: at the end of the academic year – 158,8, at the beginning – 156, 2.8cm difference ($p>0,05$) and running at 30 m at the end of the academic year – 7,43, at the beginning – 7,5, with 0,07 s difference (>0,05).

Table 2

Average Physical Preparedness Indicators of Boys 10-11 Years

Tests	The end of academic year	The beginning of academic year	T	p
	Boys n(46)	Boys n(46)		
	M±m	***M±m***		
Trunk forward flexion, *cm*	10,91±3,61	9,63±5,09	-1,391	>0,05
Shuttle run 4x9, *s*	12,54±1,18	12,65±1,34	0,418	>0,05
Flexion and extension of arms in lying position, the number of times	13,35±5,18	11,74±6,53	-1,310	>0,05
Standing long jump, *cm*	158,80±16,44	156±16	-0,828	>0,05
Run, 30m, *s*.	6,74±0,44	6,92±0,48	1,875	>0,05

In Table 2 indicators of boys' physical preparedness after the summer holidays are a little better than girls', although, of course, there is little worsening in results, namely, running at 30 m at the end of the academic year the result was – 6,74, and at the beginning of the academic year – 6,92, with a difference of 0,18 sec ($p> 0,05$). The figure of the trunk forward flexion at the end of the academic year was 10,91, and at the beginning – 9,63, with the difference of 1,28 cm ($p> 0,05$). In flexion and extension of arms in lying position at the end of the academic year – 13,35, and early – 11,74 with a difference of 1,61 times ($p>0,05$). Indicators of shuttle running 4x9 and performance in the standing long jump the boys showed the least probable deviation. 4x9 shuttle run at the end of the school year was 12,54, at the beginning – 12,65, with a difference of 0,11 sec ($p>0,05$). Standing long jump at the end of academic year was – 158,80, and at the beginning to 156, with the difference of 2,8 cm ($p>0,05$).

Summarized data of received indicators of young teenagers' physical preparedness and curriculum standards confirm the result, the level of which is at the stage between the elementary and average levels.

Summary of the frequency characteristics of students using varieties of motor activity during the summer holidays shows that students mostly spent their summer vacation with limited physical activity.

To identify how the students used a variety of motor activity exercises during summer holidays, a survey was conducted. It was of an anonymous nature which facilitated a higher veracity of the results.

Processed survey results have shown that most of the time during summer holidays children devoted to computers – 45 %. About 22 % of children who had a rest at the summer camps for children which conducted a pre-planned program for children with a variety of entertainment, received positive emotions

and energy from outdoor activities. 20 % of students had an active outdoor rest, playing soccer, volleyball, basketball and other sports games with their families and friends. Only 13 % of children who did not go on vacation, were generally deprived of attention and outdoor activities in the summer.

Conclusions. Our research has shown that the level of physical preparedness of young teenagers at the beginning of the school year has decreased as compared to the data gained at the end of the school year which indicates low motor activity in the summer.

Hence, the reason for understated physical preparedness is the lack of motor activity during the summertime.

In our opinion, it is possible to increase physical activity via summer camps at schools by means of sports and outdoor games.

Prospects for Further Research. In the future, we are going to work with young teenagers in order to improve their physical activity by means of sports games, namely elements of basketball at school summer camps.

Annotation

The article presents comperative characteristics of physical qualification of younger teens of dutsk school educational institution №23 at the end and at the beginning of the school year.

Key words: *physical qualification, teenagers, sport games, coordinating abilities.*

Світлана Грициляк. Порівняльна характеристика фізичної підготовленості молодших підлітків основної школи. *У статті наведено порівняльну характеристику фізичної підготовленості молодших підлітків 10–11 років шкільного навчального закладу ЗОШ № 23 м. Луцька в кінці навчального року та після літніх канікул.*

Ключові слова: *фізична підготовленість, молодші підлітки, спортивні ігри, координаційні здібності.*

Светлана Грыциляк. Сравнительная характеристика физической подготовленности младших подростков основной школы. *В статье приведена сравнительная характеристика физической подготовленности младших подростков 10–11 лет школьного учебного заведения ЗОШ № 23 г. Луцка в конце учебного года и после летних каникул.*

Ключевые слова: *физическая подготовленность, младшие подростки, спортивные игры, координационные способности.*